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EXAMINER	
ZIMMERMAN, GLENN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/671,654	Applicant(s) YAMAZAKI ET AL.	
	Examiner Glenn Zimmerman	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 December 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 0404, 0304.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. U.S. Patent 5,998,805 in view of Eida et al. U.S. Patent 5,909,081, Shibata et al. U.S. Patent 6,147,451 and Rogers U.S. Patent 6,081,071.

Regarding claim 1, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide; transistor ref. 26 which is part of an OED ref. 39)** provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)** formed of an insulating material, a packing material for bonding **(col. 8 line 10)**, but fails to teach a single crystal semiconductor substrate, a bed plate, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas and a drying agent. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide**

substrate ref. 4) and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an

inert gas in the active matrix oed array of Shi et al., since such a modification would improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Regarding claim 3, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide; transistor ref. 26 which is part of an OED ref. 39)** provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)** formed of an insulating material, a packing material for bonding **(col. 8 line 10)** wherein the cover plate comprises a transparent material in a region of the cover plate overlapping with the pixel

section **(separat glass substrate r f. 49)**, but fails to teach a single crystal semiconductor substrate, a bed plate, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas and a drying agent. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of

such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an inert gas in the active matrix oed array of Shi et al., since such a modification would improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Regarding claim 7, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide;**

transistor r f. 26 which is part of an OED ref. 39) provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)** formed of an insulating material, a binder layer **(col. 8 line 10)**, but fails to teach a single crystal semiconductor substrate, a bed plate, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas and a drying agent. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and binder layer **(sealing means, bonding ref. 5; this clearly is a layer as is lays around the circumference of the display)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and a binder layer **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref.**

1Tr1) provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an inert gas in the active matrix oed array of Shi et al., since such a modification would improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an

improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Regarding claim 9, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide; transistor ref. 26 which is part of an OED ref. 39)** provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)** formed of an insulating material, a binder layer **(col. 8 line 10; this clearly is a layer)** wherein the cover plate comprises a transparent material in a region of the cover plate overlapping with the pixel section **(separate glass substrate ref. 49)**, but fails to teach a single crystal semiconductor substrate, a bed plate, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas and a drying agent. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and binder layer **(sealing means, bonding ref. 5; this clearly is a layer)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and binder layer **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)**

wherein the vacant space is filled with an inert gas **(col. 21 lin s 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an inert gas in the active matrix oed array of Shi et al., since such a modification would improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a

modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Claims 2, 4, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. U.S. Patent 5,998,805 in view of Eida et al. U.S. Patent 5,909,081, Shibata et al. U.S. Patent 6,147,451, Rogers U.S. Patent 6,081,071 and Rallison et al. U.S. Patent 6,097,543.

Regarding claim 2, Shi, Eida, Shibata and Rogers teach all the limitations of claim 2, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active matrix OED of Shi, Eida, Shibata and Rogers, since such a modification would improve

improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Regarding claim 4, Shi, Eida, Shibata and Rogers teach all the limitations of claim 4, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active matrix OED of Shi, Eida, Shibata and Rogers, since such a modification would improve improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Regarding claim 8, Shi, Eida, Shibata and Rogers teach all the limitations of claim 8, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated

images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active matrix OED of Shi, Eida, Shibata and Rogers, since such a modification would improve improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Regarding claim 10, Shi, Eida, Shibata and Rogers teach all the limitations of claim 10, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active matrix OED of Shi, Eida, Shibata and Rogers, since such a modification would improve improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. U.S. Patent 5,998,805 in view of Eida et al. U.S. Patent 5,909,081, Shibata et al. U.S. Patent 6,147,451, Rogers U.S. Patent 6,081,071 and Kawami et al. U.S. Patent 5,882,761.

Regarding claim 5, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide; transistor ref. 26 which is part of an OED ref. 39)** provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)**, a packing material for bonding **(col. 8 line 10)** and wherein the cover plate comprises a transparent material in a region of the cover plate overlapping with the pixel section **(separate glass substrate ref. 49)**, but fails to teach a single crystal semiconductor substrate, a bed plate and cover plate formed of ceramics material, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, and is filled with a drying agent selected from the group consisting of barium oxide and silica gel. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate aluminum oxide ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert

gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(argon gas col. 21 lines 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**. Kiwama et al. in the analogous art teaches barium oxide and silica gel drying agents **(drying substance BaO col. 2 line 60 ref. 8)** . Additionally, Kiwama et al. teaches incorporation of such a BaO and silica gel to improve absorbing moisture and maintaining its solid state even after absorbing the moisture **(abstract)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an inert gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, in the active matrix oed array of Shi et al., since such a modification would improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use BaO or silica gel in the active matrix oed of Shi, since such a modification would improve absorbing moisture and maintaining its solid state even after absorbing the moisture as taught by Kiwama et al.

Regarding claim 11, Shi et al. teaches an active matrix type organic EL display **(title)** device comprising: an insulating gate field effect transistor **(ref. 30 gate oxide; transistor ref. 26 which is part of an OED ref. 39)** provided on a semiconductor substrate **(semiconductor substrate ref. 25)** an EL layer comprising an organic material **(organic layers ref. 41-43a)** provided over the insulated gate field effect transistor a cover plate **(separate glass substrate ref. 49)**, a binder layer **(col. 8 line 10)** and wherein the cover plate comprises a transparent material in a region of the cover plate overlapping with the pixel section **(separate glass substrate ref. 49)**, but fails to teach a single crystal semiconductor substrate, a bed plate and cover plate formed of ceramics material, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, and is filled with a drying agent selected from the group consisting of barium oxide and silica gel. Eida et al. in the analogous art teaches a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate aluminum oxide ref. 4)** and a binder layer **(sealing means, bonding ref. 5)** wherein an organic EL device is held **(ref. 1 OED or OLED)** wherein the vacant space is filled with an inert gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, **(col. 21 lines 60-62)**. Additionally, Eida teaches incorporation of such a bed plate **(ceramic plate support substrate Fig. 1 ref. 2)** and cover plate **(transparent inorganic oxide substrate ref. 4)** and packing material **(sealing means, bonding ref. 5)** wherein an

organic EL device is held **(r f. 1 OED or OLED)** wherein the vacant space is filled with an inert gas **(argon gas col. 21 lines 60-62)** to improve light emission life and angle-of-view characteristics **(abstract; col. 21 lines 64-67)** and prevent oxidation **(col. 21 line 63)**. Shibata et al. in the analogous art teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate **(ref. 1 monocrystalline silicon semiconductor substrate)**. Additionally, Shibata teaches incorporation of such teaches a transistor **(transistor ref. 1Tr1)** provided on a single crystal semiconductor substrate to improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits **(col. 2 lines 11-17)**. Rogers in the analogous art teaches a vacant spaced filled with a drying agent **(desiccant ref. 31)**. Additionally, Rogers teaches incorporation of such a drying agent to improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements **(col. 1 lines 66-67 and col. 2 lines 1 and 2)**. Kiwama et al. in the analogous art teaches barium oxide and silica gel drying agents **(drying substance BaO col. 2 line 60 ref. 8)** . Additionally, Kiwama et al. teaches incorporation of such a BaO and silica gel to improve absorbing moisture and maintaining its solid state even after absorbing the moisture **(abstract)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a bed and cover plate and packing material wherein an organic EL device is held wherein the vacant space is filled with an inert gas selected from the group consisting of helium, argon, krypton, xenon and nitrogen, in the active matrix oed array of Shi et al., since such a modification would

improve light emission life and angle-of-view characteristics and prevent oxidation as taught by Eida.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a transistor provided on a single crystal semiconductor substrate in the semiconductor substrate of Shi et al., since such a modification would improve providing ease of incorporation of a driving integrated circuit and prevent the need for providing external driving integrated circuits as taught by Shibata.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a drying agent in the space/gap in the active matrix oed of Shi, since such a modification would improve drying and provide an improved organic EL apparatus that is highly resistant to water, oxygen and other environmental elements as taught by Rogers.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use BaO or silica gel in the active matrix oed of Shi, since such a modification would improve absorbing moisture and maintaining its solid state even after absorbing the moisture as taught by Kiwama et al.

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. U.S. Patent 5,998,805 in view of Eida et al. U.S. Patent 5,909,081, Shibata et al. U.S. Patent 6,147,451, Rogers U.S. Patent 6,081,071, Kawami et al. U.S. Patent 5,882,761 and Rallison et al. U.S. Patent 6,097,543.

Regarding claim 6, Shi, Eida, Shibata, Rogers and Kawami et al. teach all the limitations of claim 6, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active matrix OED of Shi, Eida, Shibata, Rogers and Kawami, since such a modification would improve improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Regarding claim 12, Shi, Eida, Shibata, Rogers and Kawamit et al. teach all the limitations of claim 6, but fail to teach use of an EL display device in a goggle type display device. Rallison in the analogous art teaches use of an EL display device in a goggle type display device **(LED image generator for HMD ref. 2)**. Additionally, Rallison teaches incorporation of such a goggle type LED display to improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user **(col. 1 lines 12-15)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a goggle type LED display in the active

matrix OED of Shi, Eida, Shibata, Rogers and Kawami, since such a modification would improve improve the combining of generated images with a view of the environment surround a user and transmit such combined visual information to the eye of the user as taught by Rallison et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taniguchi et al. U.S. Patent 5,239,228 discloses a Thin-Film Electroluminescence Device for Displaying Multiple Colors with Groove for Capturing Adhesive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (571) 272-2466. The examiner can normally be reached on M-W 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh D Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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